REMARKS

Claims 29-37, 39 and 41-46 are pending in this application. Claims 1-28, 38 and 40 have been canceled without prejudice to or disclaimer of the subject matter contained therein. Claims 29-35, 33, 37, 39 and 41-46 have been amended.

Claims 1-28, 38 and 40 have been canceled without prejudice or disclaimer, and claims 29-37, 39, 41, 43-45 have been amended, for the sole reason of advancing prosecution. Applicants, by canceling or amending any claims herein, make no admission as to the validity of any rejection made by the Examiner against any of these claims. Applicants reserve the right to reassert any of the claims canceled herein or the original claim scope of any claim amended herein, in a continuing application.

Claim 29 has been amended to recite "A method for determining one or more kinetic parameters of binding between a first binding member and a second binding member comprising: simultaneously adsorbing the first binding member to a surface at a plurality of microspots, the adsorbing comprising activating the surface of at least one microspot by presenting thereto a chemical activating substance, the activating comprising forming a first channel around a region containing the at least one microspot, introducing a solution containing the activating substance into the channel, and removing excess activating solution from the channel, adsorbing the first binding member to the at least one microspot, and deactivating the at least one microspot; simultaneously presenting the second binding member to the first binding member at each of the microspots, there being a plurality of combinations of first binding member surface density and second binding member concentration among the plurality of microspots; simultaneously obtaining one or more kinetic parameters indicative of a binding reaction between the first and second

binding members at each of the plurality of microspots to produce a kinetic analysis of the binding, the binding being detected by a biosensor detection method; simultaneously obtaining reference data from a plurality of interspots, each of the microspots located at a surface between at least two or more the microspots; and processing the binding kinetic parameters and the reference date to obtain one or more kinetic parameters characteristic of binding between the first and second binding members, wherein the plurality of bindings carried out does not require a regeneration step." Support for the amendment to claim 29 can be found throughout the specification and claims as originally filed. Claims 30-36 and 43-45 depend, either directly or indirectly, from claim 29.

Claims 30-37, 39 and 41-45 have been amended to correct minor typographical errors and to be placed in proper US claim format. Support for the amendments to claims 30-37, 39 and 41-45 can be found throughout the specification and claims as originally filed.

No new matter has been added.

In view of the remarks set forth below, further and favorable consideration is respectfully requested.

I. Interview

Applicants kindly thank Examiner Lam for the interview conducted between the Examiner and Applicants' undersigned representatives on May 12, 2009.

II. At page 2 of the Official Action, claims 29, 30, 33, 36, 37, 41, 42 and 46 have been rejected under 35 USC §103(a) as being obvious over Malmqvist et al. (US Patent No. 6,200,814) in view of Newgard et al. (US Patent No. 6,110,707), in further view of Lambert (US Patent No. 20060210984) and Karlsson et al. (US Patent Publication No20050014179).

The Examiner asserts that it would have been obvious to modify the methods and devices for laminar flow on a sensing surface as described in Malmqvist et al. and the methods comprising coating a surface with nonspecific protein as described in Newgard et al., with the methods for normalizing for variations in signal intensity of binding reactions as described in Lambert and the detection methods described in Karlsson et al. to arrive at the presently claimed subject matter.

Applicants respectfully traverse the rejection of claims 29, 30, 33, 36, 37, 41, 42 and 46 because a *prima facie* case of obviousness has not been established.

To establish a *prima facie* case of obviousness, the Examiner must satisfy three requirements. First, as the U.S. Supreme Court very recently held in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), "a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions. ...it [may] be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. ...it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does... because inventions in most, if not all, instances rely upon building blocks long since

uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." (*KSR*, 550 U.S. 398 at 417.) Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *Amgen Inc. v. Chugai Pharm. Co.*, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991). Lastly, the prior art references must teach or suggest all the limitations of the claims. *In re Wilson*, 165 USPQ 494, 496 (C.C.P.A. 1970).

Applicants respectfully submit that a *prima facie* case of obviousness has not been established because, whether taken alone or in combination, none of the cited references teach or suggest each and every limitation of the presently pending claims as required by *In re Wilson.* Additionally, assuming *arguendo* that the combination of references teach or suggest each and every element of the presently subject matter, Applicants submit that Karlsson et al. teach away from the presently claimed subject matter, and therefore, any *prima case* of obviousness would be destroyed.

Independent claim 29 is directed to a method for determining one or more kinetic parameters of binding between a first binding member and a second binding member comprising: simultaneously adsorbing the first binding member to a surface at a plurality of microspots, the adsorbing comprising activating the surface of at least one microspot by presenting thereto a chemical activating substance, the activating comprising forming a first channel around a region containing the at least one microspot, introducing a solution containing the activating substance into the channel, and removing excess activating solution from the channel, adsorbing the first binding member to the at least one microspot, and deactivating the at least one microspot; simultaneously presenting

the second binding member to the first binding member at each of the microspots, there being a plurality of combinations of first binding member surface density and second binding member concentration among the plurality of microspots; ***simultaneously obtaining one or more kinetic parameters indicative of a binding reaction between the first and second binding members at each of the plurality of microspots to produce a kinetic analysis of the binding***, the binding being detected by a biosensor detection method; simultaneously obtaining reference data from a plurality of interspots, each of the microspots located at a surface between at least two or more the microspots; and processing the binding kinetic parameters and the reference date to obtain one or more kinetic parameters characteristic of binding between the first and second binding members, ***wherein the plurality of bindings carried out does not require a regeneration step***. Claims 30-36 and 43-45 depend, either directly or indirectly, from claim 29.

Independent claim 37 is directed to a method for localizing a molecular species at each of two or more microspots on a surface, comprising: activating a microspot surface by: forming a first channel around the region containing the microspot; introducing a solution containing an activating substance into the channel; and removing excess activating solution from the channel; simultaneously adsorbing a molecular species to each of the two or more microspots, the adsorbing comprising forming at least two further channels, each being perpendicular to the first channel; simultaneously introducing a solution containing the molecular species into the channel; and optionally deactivating the microspot, wherein the molecular species localized on the two or more microspots may be the same in each of the microspots or different in each of the

microspots, and wherein the molecular species may be adsorbed at identical or different surface densities to each of the microspots. Claims 39, 41, 42 and 46 depend, either directly or indirectly, from claim 37.

In contrast to the presently pending subject matter, Malmqvist et al. is directed to methods and devices for controlling a fluid flow over a sensing surface within a flow cell. The methods according to Malmqvist et al. employ laminar flow techniques to position a fluid flow over one or more discrete sensing areas on the sensing surface of the flow cell. *See* Malmqvist et al. at the abstract.

However, unlike the presently claimed subject matter, Malmqvist et al. do not teach or suggest "simultaneously adsorbing the first binding member to a surface at a plurality of microspots, the adsorbing comprising activating the surface of at least one microspot by presenting thereto a chemical activating substance, the activating comprising forming a first channel around a region containing the at least one microspot, introducing a solution containing the activating substance into the channel, and removing excess activating solution from the channel, adsorbing the first binding member to the at least one microspot, and deactivating the at least one microspot; simultaneously presenting the second binding member to the first binding member at each of the microspots, there being a plurality of combinations of first binding member surface density and second binding member concentration among the plurality of microspots; simultaneously obtaining one or more kinetic parameters indicative of a binding reaction between the first and second binding members at each of the plurality of microspots to produce a kinetic analysis of the binding, the binding being detected by a biosensor detection method; simultaneously obtaining reference data from a plurality

of interspots, each of the microspots located at a surface between at least two or more the microspots," as recited in present claim 29. In addition, Applicants submit that Malmqvist et al. do not teach or suggest activating the microspot surface while simultaneously adsorbing a molecular species to each of the two or more microspots, as recited in present claim 37. Further, Applicants submit that Malmqvist et al. do not teach or suggest the present deactivating step at all. Further, Malmqvist et al. do not teach or suggest a method that does not include a regeneration step. Accordingly, Malmqvist et al. fails to teach or suggest all the features of the presently pending subject matter.

Additionally, Applicants respectfully disagree with the Examiner's assertion that regarding Malmqvist et al. teach or suggest "simultaneously adsorbing the first binding member to a surface at a plurality of microspots" and "simultaneously presenting the second binding member to the first binding member at each of the microspots...," as presently claimed. In this regard, Applicants submit that Malmqvist et al. describe selective sample delivery techniques. The "gradient of amount of ligand" mentioned in Malmqvist et al. at column 14, lines 26-37, which is cited by the Examiner cites, is a *byproduct* of the laminar flow. The concentration in Malmqvist et al. is merely a function of time and distance of the sensing spots as described. Please *see* Malmqvist et al. at column 12, lines 55-65. Therefore, Applicants submit that Malmqvist et al. only describe creating a single spot with varying loci of concentrations of the immobilized ligand to allegedly improve on the reading from each spot. Applicants respectfully submit that this principle is in complete contrast to the presently claimed subject matter, i.e., the simultaneous obtaining of binding interactions of combinations of first binding member

surface density and second binding member concentration among the plurality of microspots.

Newgard et al. do not remedy the deficiencies of Malmqvist et al. Newgard et al. is directed to a method of engineering a mammalian cell comprising providing a starting cell, introducing into the starting cell an amylin-encoding gene operatively linked to a first promoter, and selecting a cell that exhibits increased amylin production as compared to the starting cell, where the method may further comprises introducing into the selected cell an insulin-encoding gene operatively limned to a second promoter.

Like Malmqvist et al., Newgard et al. do not teach or suggest "simultaneously adsorbing the first binding member to a surface at a plurality of microspots, the adsorbing comprising activating the surface of at least one microspot by presenting thereto a chemical activating substance, the activating comprising forming a first channel around a region containing the at least one microspot, introducing a solution containing the activating substance into the channel, and removing excess activating solution from the channel, adsorbing the first binding member to the at least one microspot, and deactivating the at least one microspot; simultaneously presenting the second binding member to the first binding member at each of the microspots, there being a plurality of combinations of first binding member surface density and second binding member concentration among the plurality of microspots; simultaneously obtaining one or more kinetic parameters indicative of a binding reaction between the first and second binding members at each of the plurality of microspots to produce a kinetic analysis of the binding, the binding being detected by a biosensor detection method; simultaneously obtaining reference data from a plurality of interspots, each of

the microspots located at a surface between at least two or more the microspots," as recited in present claim 29. In addition, Applicants submit that Newgard et al. do not teach or suggest activating the microspot surface while simultaneously adsorbing a molecular species to each of the two or more microspots, as recited in present claim 37. Accordingly, whether taken alone or in combination, Malmqvist et al. and Newgard et al. fail to teach or suggest each and every element of the presently pending claims.

Lambert does not remedy the deficiencies of Malmqvist et al. and Newgard et al. Lambert is directed to methods for normalizing for variations in signal intensity observed in biomolecular binding assays carried out in flow cell cartridges. *See* Lambert at the abstract.

Like Malmqvist et al. and Newgard et al., Lambert does not teach or suggest "simultaneously adsorbing the first binding member to a surface at a plurality of microspots, the adsorbing comprising activating the surface of at least one microspot by presenting thereto a chemical activating substance, the activating comprising forming a first channel around a region containing the at least one microspot, introducing a solution containing the activating substance into the channel, and removing excess activating solution from the channel, adsorbing the first binding member to the at least one microspot, and deactivating the at least one microspot; simultaneously presenting the second binding member to the first binding member at each of the microspots, there being a plurality of combinations of first binding member surface density and second binding member concentration among the plurality of microspots; simultaneously obtaining one or more kinetic parameters indicative of a binding reaction between the first and second binding members at each of the plurality of microspots to produce a

kinetic analysis of the binding, the binding being detected by a biosensor detection method; simultaneously obtaining reference data from a plurality of interspots, each of the microspots located at a surface between at least two or more the microspots," as recited in present claim 29. Accordingly, whether taken alone or in combination, Malmqvist et al., Newgard et al. and Lambert fail to teach or suggest each and every element of the presently pending claims.

Lambert is directed to non-uniform flow rate of laminar fluid stream in a flow cell cartridge that comprises a plurality of microspots. The non-uniform flow rate of Lambert stems from the exposure of the chip to a ***single fluid stream***, which results in a higher intensity of the spots on the chip that are physically located closer to the cartridge walls due to higher analyte concentration and longer period of contact time. *See* Lambert at paragraph 22 and Fig. 8. Where sample fluid is *selectively directed to addressable microspots*, as is the case in the system of the present subject matter, this problem is inherently avoided, and therefore, the need for calibration of the type addressed by Lambert. The skilled person in the art would therefore have no motivation to utilize the subject matter described by Lambert in combination with any of the cited references to obtain the presently subject matter.

Applicants note that Lambert merely describes calibration of results obtained from a binding reaction on a micro chip following a single stream exposure of analytes. As known to those of ordinary skill in the art, Applicants submit that the simultaneous analysis of a plurality of binding members described by Lambert is not equivalent to the simultaneous analysis recited in the present claims. In this regard, Applicants respectfully submit that ***the subject matter described by Lambert cannot be***

regarded as being simultaneously presenting and obtaining of binding interactions of combinations of first binding member surface density and second binding member concentration among the plurality of microspots, as presently claimed.

Karlsson et al. do not remedy the deficiencies of Malmqvist et al., Newgard et al. and Lambert. Karlsson et al. is directed to a method of determining kinetic parameters for a reversible molecular interaction between a ligand immobilized to a solid support surface and a binding partner to the ligand solution. According to Karlsson et al. the method comprises sequentially, without intermediate regeneration or renewal of the immobilized ligand, flowing a plurality of fluid volumes containing different known concentrations of the binding partner over the solid support surface, monitoring the momentary amount of binding partner bound to the solid support surface related to time and solution concentration of binding partner and collecting the binding data, and determining the kinetic parameters by globally fitting a predetermined kinetic model for the interaction between the binding partner and the immobilized ligand to the collected binding data, which model allows for mass transport limitation at the solid support surface. *See* Karlsson et al. at the abstract.

Additionally, as discussed during the interview on May 12, 2009, Karlsson Applicants note that Karlsson et al. claims priority to two US Provisional Applications. However, only one of the priority documents from which Karlsson et al. rely upon has a filing date prior to the presently claimed subject matter. Accordingly, only the subject matter disclosed in the first filed US Provisional Application can be relied upon in a rejection allegedly rendering the presently claimed subject matter obvious.

More specifically, Karlsson et al. claims priority to both US Provisional Patent Application No. 60/477,909 (hereinafter "P1"), which was filed on June 6, 2003, and US Provisional Patent Application No. 60/526364 of 1/12/2003 (hereinafter "P2"), which was filed on December 1, 2003. For the Examiners convenience, Applicants submit herewith copies of P1 and P2 for review. Additionally, Applicants politely note that the present application ultimately claims priority to US Provisional Patent Application No. 60/518,878, which was filed on November 12, 2003. Therefore, ***the effective filing date of the present application is November 12, 2003***, which antedates P2. Accordingly, Applicants submit that only the subject matter disclosed in P1 can be utilized in a rejection against the presently claimed subject matter.

In this regard, Applicants submit that, in complete contrast to the present subject matter, the procedures described by ***P1 explicitly require a regeneration step***. Please *see* P1, for example at Example 1, page 15, lines 1-24 and Example 5 at page 20. P1, and for the purposes of the outstanding rejection, Karlsson et al., therefore ***teach away*** from the presently claimed subject matter, ***which does not require a regeneration step***.

Moreover, Karlsson et al. teach that "...determining kinetic parameters may be substantially improved and speeded up by a titration type, or 'sequential injection,' procedure wherein the ligand-supporting surface is successively contacted, in one and the same analytical cycle, with the different analyte concentrations to produce a ***continuous sensorgram***...this titration type method reduces the amount of experimental data to be evaluated and eliminates the risk of regeneration conditions destroying immobilized ligand. (Emphasis added). *See* Karlsson et al. at paragraph

[0094].

Therefore, Applicants submit that Karlsson et al. merely avoid regeneration to produce a continuous sensogram only by employing ***sequential*** introduction of analyte concentrations, which, in contrast to the presently claimed subject matter, is not simultaneous.

Applicants politely note that the presently claimed subject matter is, generally, directed to the simultaneous obtaining of binding interactions of combinations of a first binding member surface density and a second binding member concentration among a plurality of microspots. However, Applicants submit that whether taken alone, or in combination, none of the cited references teach or suggest ***simultaneously obtaining one or more kinetic parameters indicative of a binding reaction between the first and second binding members at each of the plurality of microspots to produce a kinetic analysis of the binding***, the binding being detected by a biosensor detection method; simultaneously obtaining reference data from a plurality of interspots, each of the microspots located at a surface between at least two or more the microspots; and processing the binding kinetic parameters and the reference date to obtain one or more kinetic parameters characteristic of binding between the first and second binding members, ***wherein the plurality of bindings carried out does not require a regeneration step***, as presently claimed. In addition, Applicants submit that none of the references teach or suggest "a plurality of combinations of first binding member surface density and second binding member concentration among the plurality of microspots," as presently claimed. In view of the foregoing, Applicants respectfully submit that none of the cited references, whether taken alone, or in combination, teach

or suggest every element of the presently pending claims. Further, assuming *arguendo* that every element were taught or suggested, Applicants submit that Karlsson et al. teach away from the present claims.

In further support of the patentability of the presently claimed subject matter Applicants submit that both Malmqvist et al. and Karlsson et al. are commonly owned by Biacore. It is, therefore, surprising that while the two references have been combined, the inventors, who are most likely reasonably skilled in the art, do not draw the nexus between the similar technology as recognized by the Examiner. In this regard, Applicants note that the methods of Malmqvist et al. are not ready for combination with the alleged "improvements or modifications" of Karlsson et al. Accordingly, Applicants submit that as the skilled artisans specifically filing for patent applications on behalf of the same entity did not have motivation to combine the subject matter described therein, respectively.

As discussed with the Examiner in during the May 12, 2009 interview, and the previously submitted response, performing bioassay steps in a simultaneous manner as presently claimed is a very rapid and efficient method, referred to in the specification as the "*One Shot Kinetics*" concept. Please *see* page 2, last paragraph and page 4, second paragraph of the present specification. This method enables detecting the reaction between a plurality of combinations of the first binding member surface density and the second binding member concentration with minimal number of experimental steps.

Applicants respectfully submit that the unique feature of the presently claimed "*One Shot Kinetics*" concept represents a major advantage over the cited art. Simultaneously obtaining reference data from a plurality of interspots located at the surface between the microspots is an improvement over the common approach such as that described by Malmqvist et al., for example, at column 4, lines 41-54, which utilizes only a part of the microspots i.e., those which do not contain a relevant binding member for obtaining the reference data.

In comparison with the method described in the cited art, collecting reference data from the interspots, as presently claimed, has two major advantages. One advantage is *more efficient use* of the surface area. According to the presently claimed subject matter, microspots may be used for measuring the bio-interaction; therefore, none are spent for referencing. Thus, more kinetic or thermodynamic data can be gained from each experiment. An additional advantage of the present subject matter over the cited art is that a "*local reference,*" in which the reference data for each microspot is taken from its neighboring interspots, may be obtained.

In the contrast to the presently claimed subject matter, in the method utilized in the cited art, the reference measurement is performed in more distant locations. For example, a single microspot is used as a reference for several microspots located in the same channel. The use of the "local reference," as presently claimed, provides more reliable reference data since it takes into account local effects, including, for example: effects relating to temperature variations, local concentration changes, surface defects and others. Therefore, more accurate kinetic or thermodynamic data can be obtained by the presently claimed method.

In view of the remarks set forth herein, it is submitted that, whether taken alone or in combination, none of the cited references render the presently pending claims obvious within the meaning of 35 USC § 103(a). Accordingly, the Examiner is respectfully requested to withdraw this rejection.

III. At page 9 of the Official Action, claims 31, 35 and 43 have been rejected under 35 USC §103(a) as being unpatentable over Malmqvist et al. in view of Newgard et al., Lambert and Karlsson et al. in further view of Lenox et al. [sic] (US Patent No. 6,478,839).

The Examiner asserts the combination of references teach or suggest each and every element of claims 31, 35 and 43.

Applicants respectfully traverse this rejection because a *prima facie* case of obviousness has not been established.

A brief authority of the relevant law relating to obviousness is set forth above. For the sake of compact prosecution, the discussion of relevant authority is incorporated by reference.

Additionally, Applicants note that the presently claimed subject matter is discussed in detail above. The discussion of the presently claimed subject matter is also incorporated herein by reference.

Each of Malmqvist et al., Newgard et al., Lambert and Karlsson et al. are also discussed above. The discussion of these references is incorporated herein by reference. As discussed, Applicants respectfully submit that none of Malmqvist et al., Newgard et al., Lambert and Karlsson et al., whether taken together or alone, teach or suggest each and every element of the presently claimed subject matter. Additionally, Applicants submit that Karlsson et al. teach away from the presently claimed subject

matter.

Kansa et al., i.e., US Patent No. 6,478,839, do not remedy the deficiencies of Malmqvist et al., Newgard et al., Lambert and Karlsson et al. Kansa et al et al. is directed to a device for induction-heat melting treatment of metal-oxide-powders. *See* Kansa et al. at the abstract. Applicants note that US Patent No. 6,478,839 is not to Lennox et al., as indicated by the Examiner, but rather to Kansa et al. Additionally, Applicants note that Kansa et al. has nothing to do with the presently claimed subject matter. Therefore, **once again, Applicants request that the Examiner clarify whether it was her intent to cite Kansa et al., or another reference.**

Like Malmqvist et al., Newgard et al., Lambert and Karlsson et al., Kansa et al. do not teach or suggest the presently claimed subject matter. In addition, whether taken alone or in combination, none of the cited references teach or suggest the presently claimed subject matter.

Therefore, in view of the remarks set forth herein, it is submitted that, whether taken alone or in combination, none of the cited references render the presently pending claims obvious within the meaning of 35 USC § 103(a). Accordingly, the Examiner is respectfully requested to withdraw this rejection.

IV. At page 10 of the Official Action, claims 32, 44 and 45 have been rejected under 35 USC §103(a) as being unpatentable over Malmqvist et al. in view of Newgard et al., Lambert and Karlsson et al., and in further view of Natesan et al. (US Publication No. 2002/0048792)

The Examiner asserts that cited references teach or suggest each and every element of claims 32, 44 and 45.

Applicants respectfully traverse this rejection because a *prima facie* case of obviousness has not been established.

A brief authority of the relevant law relating to obviousness is set forth above. For the sake of compact prosecution, the discussion of relevant authority is incorporated by reference.

Additionally, Applicants note that the presently claimed subject matter is discussed in detail above. The discussion of the presently claimed subject matter is also incorporated herein by reference.

Each of Malmqvist et al., Newgard et al., Lambert and Karlsson et al. are also discussed above. The discussion of these references is incorporated herein by reference. As discussed, Applicants respectfully submit that none of Malmqvist et al., Newgard et al., Lambert and Karlsson et al., whether taken together or alone, teach or suggest each and every element of the presently claimed subject matter. Additionally, Applicants submit that Karlsson et al. teach away from the presently claimed subject matter.

Natesan et al. do not remedy the deficiencies of Malmqvist et al., Newgard et al., Lambert and Karlsson et al. Natesan et al. is directed to a method for regulated production of a desired protein in cells, which comprises providing cells containing

recombinant nucleic acids encoding at least one fusion protein which binds to a selected ligand, wherein the fusion protein comprises a ligand binding domain and a DNA binding domain.

In contrast to the presently claimed subject matter, like Malmqvist et al., Newgard et al., Lambert and Karlsson et al., Natesan et al. do not teach or suggest the presently claimed subject matter. Accordingly, whether taken alone or in combination, Malmqvist et al., Newgard et al., Lambert, Karlsson et al. and Natesan et al. fail to teach or suggest every element of the presently pending subject matter.

In view of the remarks set forth herein, it is submitted that, whether taken alone or in combination, none of the cited references render the presently pending claims obvious within the meaning of 35 USC § 103(a). Accordingly, the Examiner is respectfully requested to withdraw this rejection.

V. At page 11 of the Official Action, claims 34 and 39 have been rejected under 35 USC §103(a) as being unpatentable over Malmqvist et al. in view of Newgard et al., Lambert and Karlsson et al., and further in view of Siddigi et al. (US Patent No. 5,541,113)

The Examiner asserts that the combination of references teach or suggest every element of claims 34 and 39.

Applicants respectfully traverse this rejection because a *prima facie* case of obviousness has not been established.

A brief authority of the relevant law relating to obviousness is set forth above. For the sake of compact prosecution, the discussion of relevant authority is incorporated by reference.

Additionally, Applicants note that the presently claimed subject matter is

discussed in detail above. The discussion of the presently claimed subject matter is also incorporated herein by reference.

Each of Malmqvist et al., Newgard et al., Lambert and Karlsson et al. are also discussed above. The discussion of these references is incorporated herein by reference. As discussed, Applicants respectfully submit that none of Malmqvist et al., Newgard et al., Lambert and Karlsson et al., whether taken together or alone, teach or suggest each and every element of the presently claimed subject matter. Additionally, Applicants submit that Karlsson et al. teach away from the presently claimed subject matter.

Siddigi et al. do not remedy the deficiencies of Malmqvist et al., Newgard et al., Lambert and Karlsson et al. Siddigi et al. is directed to a method for detecting analyte in an aqueous solution at a physiological pH, by reductive or oxidative electrochemical luminescence methodologies, which method proceeds by labeling the analyte with a transition metal complex, followed by inducing the transition metal label to luminescence by application of a suitable electrical potential to a solution containing the label and the analyte.

In contrast to the presently claimed subject matter, like Malmqvist et al., Newgard et al., Lambert and Karlsson et al., Siddigi et al. do not teach or suggest the presently claimed subject matter. Accordingly, whether taken alone or in combination, Malmqvist et al., Newgard et al., Lambert, Karlsson et al. and Siddigi et al. fail to teach or suggest every element of the presently pending subject matter.

In view of the remarks set forth herein, it is submitted that, whether taken alone or in combination, none of the cited references render the presently pending claims obvious within the meaning of 35 USC § 103(a). Accordingly, the Examiner is respectfully requested to withdraw this rejection.

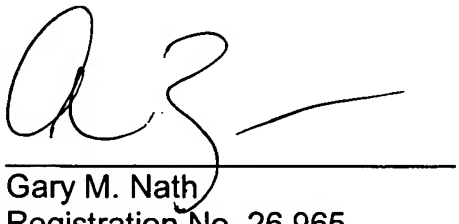
CONCLUSION

In view of the foregoing, Applicants submit that the application is in condition for allowance. Early notice to that effect is earnestly solicited. The Examiner is invited to contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

In the event this paper is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,

THE NATH LAW GROUP



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